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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Ola Logdberg

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EXAMINER

KISWANTO, NICHOLAS

ART UNIT

PAPER NUMBER

3664

MAIL DATE

DELIVERY MODE

03/20/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/556,135	Applicant(s) LOGDBERG, OLA	
	Examiner NICHOLAS KISWANTO	Art Unit 3664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 November 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

Claim Objections

1. Claim 9 is objected to because of the following informalities: Claim 9 is referring to a device, but is dependent on claim 7, which is a method. Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as failing to set forth the subject matter which applicant(s) regard as their invention. Evidence that claims 6 and 7 fail(s) to correspond in scope with that which applicant(s) regard as the invention can be found in the reply filed 11/9/2005. In that paper, applicant has stated that switching off active boundary control, thus increasing wake magnitude, is beneficial to reducing air resistance for a following car when said following car is within a certain distance, and this statement indicates that the invention is different from what is defined in the claim(s) because the claims indicate that the wake is either increased or turned completely on when the following vehicle's distance increases (gets farther away) than a certain value (claim 6), and that the wake is either decreased or turned off when the following vehicle's distance decreases (gets closer) than a certain value (claim 7). Thus, claims 6 and 7 contradict the specification's disclosure of the benefits of wake manipulation.

4. Claim 7 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 7 states “decreasing the magnitude as the distance”. It is not known what magnitude claim 7 is referring.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

6. Claims 1, 3, 4, 5, 8, and 9 are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (6,846,035).

As to claim 1, Wong shows a method for regulating during driving the air resistance to a leading 102 and at least one following vehicle 104, the method comprising detecting the distance of the leading vehicle from the at least one following vehicle (col 8, line 24 – 26) and regulating the magnitude of a wake formed behind the leading vehicle (col 4, line 9 – 10) according to the detected distance between the leading and the following vehicles (col 8, line 27 – 29) in

order to optimize the overall air resistance to both the leading and the at least one following vehicle (col 5, line 16 – 20).

As to claim 3, Wong further shows a device for regulating during driving the air resistance to a leading 102 and at least one following vehicle 104, comprising apparatus at the leading vehicle operable for regulating the magnitude of a wake formed behind the leading vehicle (col 4, line 9 – 10) by comprising a distance sensor at the leading vehicle operable for measuring the distance between the leading and the at least one following vehicle (col 8, line 24 – 26) and a control device 208 operable for controlling the apparatus for regulating the magnitude of the wake according to the distance detected by the sensor (col 8, line 27 – 29) in order to optimize the overall air resistance to the leading and the following vehicle (col 5, line 16 – 20).

As to claim 4, Wong further shows a computer program comprising computer-readable code which, when run on a computer, causes a control device to regulate during driving the air resistance to a leading 102 and at least one following vehicle 104 by detecting the distance of the leading vehicle from the at least one following vehicle (col 8, line 24 – 26) and regulating the magnitude of a wake formed behind the leading vehicle (col 4, line 9 – 10) according to the detected distance between the leading and the following vehicles (col 8, line 27 – 29) in order to optimize the overall air resistance to both

the leading and the at least one following vehicle (col 5, line 16 - 20).

As to claim 8, Wong further shows a device according to claim 3, wherein the apparatus operable comprises an air flow device operative for affecting air flow past the vehicle for regulating the wake 206.

As to claim 9, Wong further shows a device according to claim 7, wherein the air flow device is operable to direct air inwardly from a surface of the vehicle past which air flows during driving (Fig. 4).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 2, 6, and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong.

As to claims 2, 6, and 7, Wong discloses the claimed invention as shown above, including modifying the wake manipulation dependent on the distance between vehicles (col 9, line 17 - 21).

However, Wong is silent as to the specifics of a predetermined value used in determining the magnitude of wake manipulation. Nevertheless, it would have been obvious to one of ordinary skill in the art and by Wong's disclosure at (col 9, line 17 - 21) that a predetermined value or threshold could be used within Wang's invention that controlled the magnitude of wake manipulation.

As to claim 5, Wong discloses a computer program product according to claim 4, as shown above.

However, it is silent as to the specifics of a support. Nevertheless, it would have been obvious to one of ordinary skill in the art that a computer program must be stored on some sort of support, such as memory.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Farlow et al. (6,886,882) discloses a cab extender assembly method and apparatus.

Winner et al. (2004/0119632) discloses a method for regulating the speed of a vehicle.

MacNeille et al. (2004/0193372) discloses relative positioning for vehicles using GPS enhanced with Bluetooth range finding.

McCrary (6,249,724) discloses an intelligent public transit system using dual-mode vehicles.

Bonutti (2007/0158502) discloses an ultrasonic communication and drag modification.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to NICHOLAS KISWANTO whose telephone number is (571)270-3269. The examiner can normally be reached on Monday - Friday, 8AM - 5PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Khoi Tran can be reached on (571) 272-6919. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nicholas Kiswanto

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March 16, 2008

/Khoi H Tran/

Supervisory Patent Examiner, Art Unit 3664